



Figs. 1-11. (See opposite page for explanation.)

Olios schistus Chamberlin

Figs. 7 and 10

Olios schistus Chamberlin, Pomona College Jour. Ent. and Zoo., 12:10, pl. 4, figs. 2 and 3, 1920 (Advance Reprint in 1919).

Female.—Total length, 12.5 mm. Carapace, 4.95 mm long, 4.55 mm at the widest place, 3.17 mm in front. Abdomen, 7.5 mm long, 5.64 mm wide. Carapace irregular dark reddish brown above, the pars cephalica noticeably lighter than the pars thoracica; dorsal groove distinct, from it light bands radiate to the sides which are provided with light sub-marginal bands. Chelicerae reddish brown more or less concolorous with the pars cephalica. Sternum orange brown, lighter than the coxae which are dark brown; labium and endites reddish bearing white distal patches. Legs reddish with numerous small punctations on all the joints, the tibiae with indications of a narrow dark annulus basally. Dorsum of the abdomen irregular-reddish brown streaked with light and dark, and in this specimen, without distinct markings. Sides densely provided with dark spots and streaks; venter somewhat lighter, with a broad median dark band extending from the epigynum to the spinnerets.

Anterior row of eyes slightly recurved, narrower than the slightly procurved posterior row (19/23). Eyes of the anterior row subequal, the anterior median eyes closer to the anterior lateral than to each other, being separated from each other by more than a diameter, from the anterior lateral eyes by five-sevenths of a diameter. Eyes of the posterior row subequal and subequidistant, separated from each other by about two and one-half diameters. Median ocular quadrangle about as long as wide, slightly wider behind than in front, the posterior eyes about five-sevenths as large as the anterior. Clypeus equal in height to slightly more than one-half the diameter of an anterior median eye. Chelicerae, 2.08 mm long; lower cheliceral margin armed with four teeth of which the basal two are small and weak, while the distal two are large and robust; upper margin armed with two teeth, one large and one small. Tibiae I and II with 2-2 spines below. Tibia and patella I, 7.23 mm long (tibia alone, 4.74 mm); tibia and patella IV, 5.64 mm long (tibia alone, 3.56 mm).

Epigynum consisting of a more or less oval atrium flanked by heavily chitinized side pieces. For further details regarding the structure of the epigynum see Fig. 7.

Described from a female specimen collected at San Diego, California and in United States National Museum. A female from San Jacinto is also in that institution.

Male.—Total length, 8.10 mm. Carapace, 4.00 mm long, 4.16 mm at the widest place, 2.48 mm wide in front. Abdomen, 4.85 mm long, 3.46 mm wide. Carapace light brown above with distinct reddish punctations. Chelicerae concolorous with the carapace, bearing reddish punctations. Sternum and coxae yellowish brown with minute punctations; labium and endites reddish with distal white patches. Legs light brown, densely provided with dark punctations, tibiae with an annulus basally. Dorsum of the abdomen

Fig. 1.—*Olios fasciculatus* Simon, epigynum. Fig. 2.—*O. abnormis* Keyserling, male palpus, ventral view. Fig. 3.—*O. albinus*, n. sp., epigynum. Fig. 4.—*O. mohavensis*, n. sp., epigynum. Fig. 5.—*Tentabunda cubana* (Banks), epigynum. Fig. 6.—*Olios bibranchiatus*, n. sp., epigynum. Fig. 7.—*O. schistus* Chamberlin, epigynum. Fig. 8.—*O. bibranchiatus*, n. sp., male palpus, ventral view. Fig. 9.—*O. fasciculatus* Simon, male palpus, ventral view. Fig. 10.—*O. schistus* Chamberlin, male palpus, lateral view. Fig. 11.—*Tentabunda cubana* (Banks), male palpus, ventral view.

gray with dark brown maculations; the distinct design consists of a basal gray lanceolate mark outlined in dark which extends to the posterior termination of the abdomen in the form of an irregular dark band. Sides and venter streaked with reddish maculations.

Anterior row of eyes slightly recurved, narrower than the procurved posterior row (32/39). Eyes of the anterior row subequal, the anterior median eyes separated from each other by slightly more than a diameter, from the anterior lateral by about one-third of a diameter. Eyes of the posterior row subequal and equidistant, separated by more than two diameters. Median ocular quadrangle about as long as wide, slightly wider behind than in front, the posterior eyes about two-thirds as large as the anterior. Clypeus equal in height to about one-half the diameter of an anterior median eye. Chelicerae, 1.68 mm long; lower cheliceral margin armed with four teeth of which the basal two are small and weak, while the others are large and robust; upper cheliceral margin armed with two teeth, one small and one large. Tibiae I and II with 2-2 spines below. Tibia and patella I, 7.23 mm long (tibia alone, 5.15 mm); tibia and patella IV, 6.53 mm long (tibia alone, 4.46 mm).

Patella of the palpus about as long as wide, tibia more than twice as long as the patella, with a broad distally expanded apophysis which is as long as the joint, and two distal processes of which one is longer than the other. For further details regarding the structure of the palpal organ see Fig. 10.

Described from a male specimen collected at Claremont, California and in the Collection of Prof. R. V. Chamberlin.

This species is most closely related to *O. peninsulans* Banks, known from Baja California, and is distinguished from the latter primarily by the character of the tibial apophysis of the male palpus which is distally truncate and bifid instead of sloping to a point. In general structure and appearance it resembles *O. abnormis* Keyserling from which it may also be differentiated by the structure of the tibial apophysis.

***Olios bibranchiatus*, n. sp.**

Figs. 6 and 8

Sparassus minax Banks, Proc. U. S. Nat. Mus. 23:585. 1901. (Not *Olios minax* (Cambridge))

Male.—Total length, 11.00 mm. Carapace, 5.25 mm long, 4.95 mm at the widest place, 2.97 mm wide in front. Abdomen, 5.45 mm long, 3.96 mm wide. Dorsum of the carapace orange brown with lighter bars and streaks. Clypeus and chelicerae more or less concolorous with the carapace, the claws blackish. Sternum and coxae clear light brown, without dark markings; labium and endites somewhat darker, bearing white distal patches. Legs reddish brown with minute dark punctations but without annulations. Abdomen irregular brown and gray above, with evidences of dark chevrons posteriorly. Venter and sides lighter than the dorsum, clear yellowish without dark markings.

Anterior row of eyes slightly recurved, narrower than the procurved posterior row (17/21). Anterior median eyes slightly larger than the anterior lateral, separated from each other by about a diameter, somewhat closer to the anterior lateral than to each other. Eyes of the posterior row subequi-

distant and separated by about twice the diameter of a posterior median eye, the posterior lateral eyes somewhat larger than the posterior median. Median ocular quadrangle about as long as wide, wider behind than in front, the posterior eyes about five-sevenths as large as the anterior. Clypeus equal in height to about five-sevenths the diameter of an anterior median eye. Chelicerae, 2.18 mm long; lower cheliceral margin armed with four teeth of which the basal is small and weak while the distal three are large and robust; upper margin armed with two teeth, one large and one weak. Tibiae I and II with 2-2 spines below. Tibia and patella I, 10.30 mm long (tibia alone, 7.33 mm); tibia and patella IV, 8.81 mm long (tibia alone, 6.34 mm).

Patella of the palpus longer than wide, tibia slightly longer than the patella; tibial apophysis bibranchiate, the anterior branch with a conspicuous node distally, from the base of this branch a pointed process as long as the tibia itself extends anteriorly. For further details regarding the structure of the palpus see Fig. 8.

Female.—Total length, 14.85 mm. Carapace, 6.44 mm long, 5.74 mm at the widest place, 3.66 mm wide in front. Abdomen, 8.22 mm long, 5.00 mm wide. Carapace yellowish brown above without dark markings, clothed with a white pubescence. Clypeus and eye region concolorous with the dorsum; chelicerae dark brown, the claws blackish. Sternum and coxae yellowish brown without dark markings; labium and endites darker, with white distal patches. Legs concolorous with the dorsum of the carapace being clear light yellowish brown without annulations. Abdomen light brown, with indications of a basal dark median lanceolate mark; venter lighter than the dorsum, unmarked.

Anterior row of eyes recurved, narrower than the procurved posterior row (21/26). Eyes of the anterior row subequal, the anterior median eyes closer to the anterior lateral than to each other, being separated from each other by slightly more than a diameter, from the anterior lateral by five-eighths of a diameter. Eyes of the posterior row subequidistant, separated from each other by about twice the diameter of a posterior median eye, the posterior lateral eyes slightly larger than the posterior median. Median ocular area wider than long (23/18), somewhat wider behind than in front, the posterior eyes about five-eighths as large as the anterior. Clypeus equal in height to five-eighths the diameter of an anterior median eye. Chelicerae, 3.46 mm long; lower margin armed with four teeth, of which the basal is small while the distal three are large, upper margin armed with two teeth of which one is large and the other small. Tibiae I and II with 2-2 spines below. Tibia and patella I, 9.00 mm long (tibia alone, 5.94 mm); tibia and patella IV, 7.72 mm long (tibia alone, 5.25 mm).

The epigynum is subject to some variation; in some cases a distinct median inverse T-shaped septum is present (as in the allotype, Fig. 6), while in others the longitudinal bar of the septum is indistinct or lacking. Paratypic material in the American Museum of Natural History exhibits this difference, but the transverse bar of the septum is the same in each case.

Type locality.—Arizona: Male holotype from Madera Canyon, Santa Rita Mountains, May, 1898 (E. A. Schwartz, Collector), in the United States National Museum (U.S.N.M. Cat. No. 1274). Female allotype from Santa Fe, New Mexico, also in the United States National Museum. Two male paratypes and three female paratypes from Oro Blanco Mts., 12 miles from Nogales, Arizona, July, 1937, in the American Museum of Natural History.

Olios abnormis Keyserling

Fig. 2

Olios abnormis Keyserling, Verh. Zool. Bot. Ges. Wien 33: 679, Pl. XXI, Fig. 27. 1883.

Male.—Total length, 8.10 mm. Carapace, 4.36 mm long, 3.96 mm at the widest place, 2.28 mm wide in front. Abdomen, 3.96 mm long, 2.87 mm wide. Carapace light reddish brown above, with streaks of dark brown on the pars cephalica, sides without submarginal light bands. Clypeus, eye region, and chelicerae concolorous with the dorsum. Sternum yellowish, with minute reddish punctations; coxae and endites clear yellowish brown, without reddish markings, labium somewhat darker. Legs reddish brown with numerous minute punctations; tibia with a dark annulus at their proximal ends. Abdomen yellowish brown, provided with a distinct median design which consists of a basal lanceolate white mark outlined with reddish brown which extends to the posterior termination of the abdomen in the form of an irregular dark brown line. Sides and venter densely provided with reddish maculations.

Anterior and posterior eye rows slightly procurved, the former shorter than the latter (35/42). Anterior median eyes separated from each other by about a diameter, from the anterior lateral by about three-fifths of a diameter and larger than the latter (6/5). Eyes of the posterior row subequal and equidistant separated from each other by about two diameters. Median ocular quadrangle wider than long (17/15), about as wide in front as behind; the posterior eyes about five-sevenths as large as the anterior. Clypeus equal in height to about three-sevenths the diameter of an anterior median eye. Chelicerae, 1.68 mm long; lower chelical margin armed with four teeth of which the distal three are large and the basal is weak; upper margin armed with two teeth one large and the other small. Tibia I and II with 2-2 spines below. Tibia and patella I, 6.43 mm long (tibia alone, 4.36 mm); tibia and patella IV lacking in the specimen.

Patella of the palpus longer than wide (15/12), tibia about twice as long as the patella, with a thick retrolateral bibranchiate apophysis, about as long as the width of the joint, and two distal processes, one of which is spinose while the other is distinctly hook-like. For further details regarding the structure of the palpus see Fig. 2.

Described from a male specimen collected at Kits Peak, Rincon, Baboquivari Mountains, Arizona, July 31–Aug. 3, 1916, by F. E. Lutz and in the Collection of the American Museum of Natural History. A single male in poor condition from Los Angeles, California, is in the United States National Museum.

Olios mohavensis, n. sp.

Fig. 4

Female.—Total length, 16.80 mm. Carapace, 6.83 mm long, 6.04 mm at the widest place, 4.06 mm wide in front. Abdomen, 9.91 mm long, 5.60 mm wide. Dorsum of the carapace muddy brown, the pars cephalica much lighter than the pars thoracica and provided anteriorly with two parallel lines which extend forward between the posterior median eyes. Clypeus and chelicerae concolorous with the pars cephalica, the claws blackish. Sternum and coxae light yellowish brown; labium and endites somewhat darker, bearing white distal patches. Legs uniform light yellowish brown without annulations. Abdomen orange brown above, provided with a dark basal lanceolate mark from whose sides project several dark lines; this mark is flanked on each side by a submedian and a subterminal punctation. Venter lighter than the sides, provided with two short dark lines.

Anterior and posterior rows of eyes slightly procurved, the former narrower than the latter (22/27). Eyes of the anterior row subequal, the anterior median eyes closer to the anterior lateral than to each other, being separated from each other by more than a diameter, from the anterior lateral by five-eighths of a diameter. Eyes of the posterior row subequidistant, separated by more than two times the diameter of a posterior median eye, the posterior lateral eyes somewhat larger than the posterior median. Median ocular quadrangle about as wide as long, as wide in front as behind; the posterior eyes about two-thirds as large as the anterior. Clypeus equal in height to about five-eighths the diameter of an anterior median eye. Chelicerae, 3.00 mm long; lower cheliceral margin armed with four teeth of which the basal is small and weak while the distal three are large and robust, upper margin armed with two teeth, one large and one small. Tibiae I and II with 2-2 spines below. Tibia and patella I, 10.49 mm long (tibia alone, 7.52 mm); tibia and patella IV, 9.41 mm long (tibia alone, 6.73 mm).

Epigynum about as long as wide, consisting of a deep chitinated atrium flanked by heavy side pieces. For further details regarding the structure of the epigynum see Fig. 4.

Type locality.—California: Female holotype from Mohave Desert (no further data) in the United States National Museum (U.S.N.M. Cat. No. 1273).

Olios albinus, n. sp.

Fig. 3

Female.—Total length, 12.87 mm. Carapace, 4.95 mm long, 4.65 mm at the widest place, 3.17 mm wide in front. Abdomen, 7.43 mm. long, 5.94 mm wide. Dorsum of the carapace whitish, the pars cephalica outlined with minute punctations. Eye region, clypeus, and chelicerae tinged with orange, the claws of the chelicerae blackish. Sternum and coxae white, labium and endites light brown with whitish distal patches. Legs uniform white below, above whitish with sparse punctations except for the metatarsi and tarsi which are brown contrasting with the other joints. Dorsum of the abdomen whitish tinged with brown, a basal lanceolate mark is outlined by brown spots and continues posteriorly in the form of an irregular median longitudinal band. Venter lighter than the dorsum and sides, being white and unmarked.

Anterior row of eyes straight, narrower than the slightly procurved posterior row (19/23). Anterior median eyes closer to the anterior lateral than to each other, separated from each other by about a diameter, from the anterior lateral eyes by about five-sevenths of a diameter and larger than the latter. Eyes of the posterior row subequal and equidistant, separated by about two diameters. Median ocular quadrangle wider than long (20/17), slightly wider behind than in front, the posterior eyes about five-sevenths as large as the anterior. Clypeus equal in height to about one-half the diameter of an anterior median eye. Chelicerae, 2.18 mm long; lower cheliceral margin armed with three teeth, upper margin armed with two. Tibiae I armed with 2-2 spines below; spination of the animal's left tibia II irregular, apparently involving 2-1r-2-1r spines below, spination of the right tibia normal, involving 2-2 spines below. Tibia and patella I, 7.13 mm long (tibia alone, 4.65 mm); tibia and patella IV, 5.45 mm long (tibia alone, 3.66 mm).

Epigynal area small, the atrium more or less heart shaped, provided with a lobe which extends caudally from the anterior border and divides the anterior three-fourths of the atrium into two parts. For further details regarding the structure of the epigynum see Fig. 3.